

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/NZ2004/000230

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: B82B 3/00, H01J 37/317, H01L 21/26, 21/285, 21/311, 21/3213

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI, INSPEC: +cluster+, +etch+, +groov+, +mask+, +templat+, +topogr+, etch+, groov+, insulat+, mask+, nano+, pattern, semiconduct+, topograph+, wire?

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MÜLLER et al., <i>Template-directed self-assembly of buried nanowires and the pearling instability</i> , <b>Materials Science and Engineering C</b> 19 (2002) 209–213. Page 209, right column, middle paragraph; figures 1–4.	1–46
P,X	PARTRIDGE et al., <i>Templated cluster assembly for production of metallic nanowires in passivated silicon V-grooves</i> , <b>Microelectronic Engineering</b> 73–74 (2004) 583–587. The whole document.	1–46
X	TADA et al., <i>Channel waveguides fabricated in 2D photonic crystals of Si nanopillars</i> , <b>Microelectronic Engineering</b> 63 (2002) 259–265. Page 260; figures 1–2.	1–2,5,9,11–13,26–28,34,40
Y	Page 260; figures 1–2.	3–4,6–8,10,14–25,29–33,35–39,41–46

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
14 December 2004Date of mailing of the international search report  
21 DEC 2004Name and mailing address of the ISA/AU  
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	WO 2004/069735 A1 (NANOCLUSTER DEVICES LTD.) 19 August 2004. The whole document.	1-46
A	US 6,579,463 B1 (WINNINGHAM et al.) 17 June 2003. Column 4, line 32-column 6, line 16.	
Y	US 6,413,880 B1 (BASKI et al.) 2 July 2002. Column 5, line 64-column 6, line 33; figures 8-10.	
P,A	US 6,773,616 B1 (CHEN et al.) 10 August 2004. Abstract; column 2, lines 6-17.  <i>Note for the "Y" indications:</i> It would be obvious to combine MÜLLER (disclosing fabrication of nanowires in oxide-covered silicon V-grooves by template-directed self-assembly of nanoclusters) with either TADA or BASKI (each disclosing etching of a silicon substrate by using the nanostructures formed on the surface of the silicon substrate as the etching mask) to arrive at the claimed invention. The combination MÜLLER + BASKI is relevant to all claims. The combination MÜLLER + TADA is relevant for claims 3-4, 6-8, 10, 14-25, 29-33, 35-39, 41-46 only.	

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/NZ2004/000230**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member			
WO	2004069735	NONE				
US	6579463	NONE				
US	6413880	AU 77013/00	EP 1221179	US 6465782		
		US 6509619	US 2003127692	WO 0118866		
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.						
END OF ANNEX						

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